

AMENDMENTS TO THE SPECIFICATION

Amend the paragraph found from page 22, line 10 to page 23, line 10 as follows:

Figure 4 shows a schematic process for the processing described with reference to Figure 3 of the present invention. First, acoustic model data and a cepstrum of an intra-frame transfer characteristic are added to create data of a "speech model affected by intra-frame intro-frame echo influence". By applying a method such as discrete Fourier transformation and indexation processing, the generated speech model data is transformed into linear spectrum acoustic model data. Furthermore, an echo prediction coefficient  $\alpha$  is determined so that likelihood is maximized for the feature quantity of an phoneme included in the speech signal selected in the transformed spectrum data. Various methods can be used for the setting, and a predetermined word or a predetermined sentence, for example, may be appropriately used for the determination. The determined echo prediction coefficient  $\alpha$ , together with acoustic model data originally stored in the speech recognition device, is used to

create adapted acoustic model data. The acoustic model data within the generated linear spectrum area is logarithmically transformed and inverse Fourier transformed to be a cepstrum, and the cepstrum is stored to perform speech recognition.

**Amend the paragraph found from page 26, line 19 to page 27, line 10 as follows:**

As for estimation of an intra-frame transfer characteristic at step S12 in Figure 3, in a particular embodiment of the present invention, for example, an intra-frame transfer function  $H$  can be used, which is acquired in the method described in "HMM-Separation-Based Speech Recognition for a Distant Moving Speaker" by T. Takiguchi, et al., IEEE Trans. on SAP, Vol. 9, No. 2, 2001, when it is assumed for convenience that there is no echo and  $\alpha=0$  is set. The intra-frame intra-frame transfer function created can be subject to Discrete Fourier Transformation and indexation processing, then transformed to a cepstrum area, and stored in a storage area.